

WHAT IS CLAIMED IS:

1. A method for reversing an ongoing proliferation or activity, or both, of activated blood cells, which comprises the step of administering an effective amount of a proteasome inhibitor to an individual in need for such a treatment.

5 2. A method as defined in claim 1, wherein said individual suffers from an adverse immune response, inflammation, or septic shock.

3. A method as defined in claim 2, wherein said adverse immune response is an autoimmune disease or a graft rejection.

10 4. A method as defined in claim 1, further comprising the step of co-administering an immunosuppressive drug with said proteasome inhibitor.

5. A method as defined in claim 4, wherein said immunosuppressive drug is selected from the group consisting of cyclosporin A, rapamycin and FK506.

15 6. A method as defined in claim 1, which results into activated blood cells apoptosis.

7. A method as defined in claim 1, which results into inhibition of energy and oxygen supply to said activated blood cells.

20 8. A method as defined in claim 7, wherein said inhibition of energy and oxygen supply is caused by disrupting mitochondrial function in activated blood cells.

9. A method as defined in claim 7, wherein said inhibition of energy and oxygen supply is caused by disruption of nitric acid synthesis.

10. A method as defined in claim 1, wherein said proteasome inhibitor is lactacystin or dipeptide boronic acid (DPBA), or analogs thereof.

11. A method as defined in claim 10, wherein said proteasome inhibitor is lactacystin.

5 12. A method as defined in claim 10, wherein said proteasome inhibitor is DPBA.